REMARKS

In the Claims:

Claims 81, 83-86, 88, 90-91, 94-100, and 104-106 are cancelled herein without disclaimer or prejudice to pursuing the invention of those claims in a continuing or divisional application.

Claims 80, 89, 92, and 103 are amended herein. Claims 80 and 103 are amended to clarify that the claimed method and kit reduce the size or improve the appearance of a closed wound through a process of administering to the closed wound a therapeutically effective amount of a composition comprising a suitable pharmaceutical carrier and at least one non-steroidal anti-inflammatory inhibitor selected from the group consisting of salicylic acid; aryl, substituted or unsubstituted aralkyl, allyl, and substituted or unsubstituted, linear, branched, or cyclic alkyl esters of salicylic acid; sulindac sulfide; sulindac sulfone; sulfasalazine; or pharmaceutically acceptable salts or combinations thereof; acetylsalicylic acid; aryl, substituted or unsubstituted aralkyl, allyl, and substituted or unsubstituted, linear, branched, or cyclic alkyl esters of acetylsalicylic acid; sodium salicylate; ibuprofen; celecoxib; rofecoxib; flufenamic acid; indomethacin; nabumetone; naproxen; or pharmaceutically acceptable salts or combinations thereof. Claims 80 and 103 are further amended to clarify that the at least one-non-steroidal inflammatory agent of the composition reduces the size or improves the appearance of the closed wound. No new matter is added by these amendments and support for the amendments may be found at pages 4, II. 4-17, and 28-31 of the specification.

Claim 80 also is amended to clarify that the wound treated by the claimed method is selected from a group consisting of a wound caused by laceration; a wound caused by avulsion; a wound caused by burn; a wound caused by radiation; a wound caused by chemical facial peel; and a wound caused by accident. Thus, as amended herein, Claim 80 excludes any acne infection or scarring. No new matter is added by this amendment and support for the amendment may be found at page 7, II. 1-2 of the specification.

Claims 89 and 92 have been amended to clarify that they are directed to a thermal insulating material. No new matter is added by this amendment. New claims 109 and 110 have been added to further clarify that the thermal insulating material of claim 89 or claim 92 may be a gel, a hydrogel, or a sponge. No new matter is added by inclusion of these claims, which are supported by claims 89 and 92. Further support for new claims 109 and 110 may be found at pages 15-17 of the specification.

Claim Rejections:

35 U.S.C. § 112, Second Paragraph

The Examiner rejects claims 80, 81, 83, 88-92, 94-100, and 106 under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as their invention.

Applicants have cancelled claims 81, 83, 88, 91, 94-100, and 106 herein and therefore, have overcome this ground of rejection for these claims and respectfully request that it be withdrawn.

The Examiner alleges that claim 80 is indefinite because while claim 80 encompasses methods of administration by injection or oral administration, dependent claims 89-91 and 98-99 recite a composition comprising thermal insulating materials consisting of gel, hydrogel, or sponge. Applicants have herein amended claim 80 to clarify that the method of administration is not limited to administration by injection or oral administration, but can include topical administration, as would be appropriate with regard to dependent claims 89 and 91.

According to the Examiner, claim 89 (and apparently claim 92) is indefinite because it sets forth a broad range limitation together with a narrow range limitation, which falls within the broad range. In particular the Examiner notes that claim 89 is directed to use of a thermal insulating material as well as use of a gel, hydrogel, or sponge. Applicants have herein clarified that claims 89 and 92 are directed to use of only the broad range limitation, a thermal insulating material. Applicants have added new claims 109 and

110 herein, which are directed to the narrower range limitation of a gel, hydrogel, or sponge.

Applicants respectfully submit that the claims, as clarified, are no longer indefinite and respectfully request that the Examiner withdraw this ground of rejection.

35 U.S.C. § 102

The Office action alleges that the claimed invention is anticipated by the following references under 35 U.S.C. § 102: DE 27 07 537; JP 08-268,886; JP 08-259,465; U.S. 6,652,856; and U.S. 6,521,271. Applicants respectfully disagree. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). MPEP § 2131.01. None of the cited references disclose, either expressly or inherently, each and every element of claims 80, 87, 89, 92-93, 101-103, and 107-110. Specifically, these claims are directed to methods and kits for reducing the size of or improving the appearance of a *closed* wound through a process of administering to the closed wound a therapeutically effective amount of at least one non-steroidal anti-inflammatory inhibitor, wherein the *non-steroidal anti-inflammatory inhibitor reduces* the size or *improves* the appearance of a *closed wound*. As used in the claims, "closed wound" refers to an open wound that has been reepithelialized. (Specification, page 6). A wound typically becomes a "closed wound" within 48-72 hours after injury.

Furthermore, the non-steroidal anti-inflammatory agent used in the present claims is selected from the group consisting of salicylic acid; aryl, substituted or unsubstituted aralkyl, allyl, and substituted or unsubstituted, linear, branched, or cyclic alkyl esters of salicylic acid; sulindac sulfide; sulindac sulfone; sulfasalazine; or pharmaceutically acceptable salts or combinations thereof; acetylsalicylic acid; aryl, substituted or unsubstituted aralkyl, allyl, and substituted or unsubstituted, linear, branched, or cyclic alkyl esters of acetylsalicylic acid; sodium salicylate; ibuprofen; celecoxib; rofecoxib; flufenamic acid; indomethacin; nabumetone; naproxen; or pharmaceutically acceptable salts or combinations thereof.

None of the references cited by the Examiner teaches, either expressly or inherently, that the *non-steroidal anti-inflammatory agents* of the currently pending claims can be used to *reduce* the size or *improve* the appearance of a *closed wound*. Therefore, none of the cited references anticipate the present invention and this ground of rejection should be withdrawn.

DE 27 07 537

Claims 80-90, 92-94, 98, and 100 stand rejected under 35 U.S.C. § 102(b) as anticipated by DE 27 07 537 ('537). Applicants respectfully disagree that the '537 reference anticipates the present invention. First, claims 81, 83-86, 88, 90-91, 94, 98, and 100 are cancelled herein. Therefore, this ground of rejection is overcome for these claims and Applicants respectfully request it be withdrawn.

Second, the teachings of the '537 reference are clearly limited to treatment of *acne* scarring. As amended herein, claims 80, 82, 87, 89, 92, and 93 are *not* directed to reducing the size or improving the appearance of *acne* infection or scarring. Rather, these claims are directed to methods of treating closed wounds, wherein the closed wound results from: a wound caused by laceration; a wound caused by avulsion; a wound caused by burn; a wound caused by radiation; a wound caused by chemical facial peel; or a wound caused by accident.

Third, the type of wound to be treated is significant because different types of wounds benefit from different treatments. For example, acne is an inflammation or infection of skin pores that blocks drainage of skin pores. Therefore, acne wounds can be treated by improving drainage of skin glands and hair follicles. An ongoing acne infection can be worsened by acne scarring because the scarring further blocks the drainage of skin pores. The '537 reference teaches using salicylic acid as an active ingredient in the treatment of acne. Salicylic acid is a standard acne treatment because it acts as an exfoliant by opening skin pores, thereby improving drainage of skin pores, including drainage of bacteria trapped in the pores. Therefore, the '537 reference correctly teaches that to locally treat or control scarring in acne, one must treat and control the acne by using a compound with exfoliant properties that aid in improving the drainage of

hair follicles and sebaceous glands in acne-prone skin. The '537 reference does not teach that *any* anti-inflammatory compound, for example those without exfoliant properties, can be used to treat an acne wound. Thus, the '537 reference clearly does not teach that salicylic acid is useful for reducing the size or improving the appearance of a closed wound resulting from a wound of the type set forth in amended claims 80, 87, 89, 92, and 93.

For at least these reasons, the '537 reference does not describe each and every element of claims 80-90, 92-94, 98, and 100, either expressly or inherently. See Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). MPEP § 2131.01. Therefore, the teachings of the '537 reference do not anticipate the invention of claims 80, 87, 89, 92, and 93 and Applicants respectfully submit that this ground of rejection is overcome and request that it be withdrawn.

JP 08-268,886

Claims 80-86 stand rejected under 35 U.S.C. § 102(b) as anticipated by JP 08-268,886 (JP '886). Applicants respectfully disagree that JP '886 anticipates the present invention. In particular, claims 81, 83-86 are cancelled herein. Therefore, this ground of rejection is overcome for claims 81, 83-86 and Applicants respectfully request that it be withdrawn.

Moreover, JP '886 does not describe each and every element of the invention of currently pending claims 80 and 82, either expressly or inherently. *See id.* Specifically, claims 80 and 82 are directed to a method of reducing the size or improving the appearance of a closed wound by administering a non-steroidal anti-inflammatory compound to the closed wound, wherein the non-steroidal anti-inflammatory agent reduces the size or improves the appearance of the closed wound. JP '886 does not teach any method for reducing the size or improving the appearance of a closed wound using a non-steroidal anti-inflammatory agent. Instead, JP '886 teaches prevention, treatment or improvement of skin diseases by suppressing vascularization in the particular skin disease using a composition containing satigrel and/or aspirin.

(abstract). With regard to the non-steroidal anti-inflammatory agent, aspirin, JP '886 teaches that "aspirin (Aspirin) concerning this invention . . . is a platelet aggregation inhibitor or an antipyretic." (page 2 of 6). Thus, JP '886 teaches that aspirin can be used to treat or improve a skin disease by preventing clotting and/or fever in the subject to whom the aspirin is administered. Therefore, the teaching of JP '886 is limited to use of non-steroidal anti-inflammatory agents with antipyretic and platelet aggregation inhibitor activities for treatment or improvement of skin diseases. JP '886 does not teach that aspirin, or any other non-steroidal anti-inflammatory agent, is useful for reducing the size or improving the appearance of a closed wound. Therefore, JP '886 does not anticipate the invention of amended claims 80 and 82. Applicants respectfully request that this ground of rejection be withdrawn.

JP 08-259,465

Claims 80-90, and 92 stand rejected under 35 U.S.C. § 102(b) as anticipated by JP 08-259,465 (JP '465). Applicants respectfully disagree that JP '465 anticipates the present invention. First, Applicants note that claims 81, 83-86, 88, and 90 are cancelled herein. Therefore, this ground of rejection is overcome for those claims and Applicants respectfully request that it be withdrawn.

Second, Applicants respectfully disagree that the teachings of JP '465 enable one of ordinary skill in the art to practice the invention of claims 80, 82, 87, 89 and 92 and disagree that each and every element of these claims is taught by JP '465. In particular, JP '465 discloses an external preparation "containing a nonsteroidal (*sic*) anti-inflammatory agent and sodium cromoglycate" as active ingredients in a composition useful for treating skin diseases. (page 1, PURPOSE). JP '465 describes various experiments conducted to determine the effectiveness of the compositions disclosed in JP '465 for treating skin disease. These experiments measured the percent of erythema control. (see paras. [0032-0033], [0038-0039]). Stedman's Medical Dictionary defines "erythema" as "redness of the skin caused by dilatation and congestion of the capillaries, often a sign of inflammation or infection." Therefore, in the experiments described in JP '465, a higher percentage of erythema control correlates

with a more effective treatment of a skin disease. JP '465 teaches that "external preparations (examples, 4, 5, 7, 8, 10, 13, and 14 of a comparison) which contain a non steroid anti-inflammatory agent or DSCG (disodium cromoglycate) *independently*, effectiveness was hardly accepted in examples 1, 2, and 3 of a trial." (para. [0041]) (emphasis added). Indeed, the reported results indicate that when used alone, a non-steroidal anti-inflammatory agent typically achieved erythema control levels of only 2-4%, whereas when a combination of a non-steroidal anti-inflammatory agent and sodium dichromoglycate was used, 38-42% erythema control was typically achieved.

Thus, JP '465 teaches that the *combination* of a non-steroidal anti-inflammatory agent and sodium cromoglycate is effective for treating a skin condition. JP '465 does not teach, either expressly or inherently, that a non-steroidal anti-inflammatory agent selected from the group consisting of salicylic acid; aryl, substituted or unsubstituted aralkyl, allyl, and substituted or unsubstituted, linear, branched, or cyclic alkyl esters of salicylic acid; sulindac sulfide; sulindac sulfone; sulfasalazine; or pharmaceutically acceptable salts or combinations thereof; acetylsalicylic acid; aryl, substituted or unsubstituted aralkyl, allyl, and substituted or unsubstituted, linear, branched, or cyclic alkyl esters of acetylsalicylic acid; sodium salicylate; ibuprofen; celecoxib; rofecoxib; flufenamic acid; indomethacin; nabumetone; naproxen; or pharmaceutically acceptable salts or combinations thereof, *by itself*, is effective for treating a closed wound.

Therefore, JP '465 does not anticipate the invention of claims 80, 82, 87, 89 and 92 and Applicants have overcome this ground of rejection. Applicants respectfully request that it be withdrawn.

U.S. 6,652,856

Claims 80-86 stand rejected under 35 U.S.C. § 102(e) as anticipated by U.S. Patent No. 6,652,856 ('856 patent). Applicants respectfully disagree that the '856 patent anticipates the present invention. In particular, claims 81, 83-86 are cancelled herein. Therefore, this ground of rejection is overcome for claims 81, 83-86 and Applicants respectfully request that it be withdrawn.

Moreover, the '856 patent does not describe each and every element of the invention of currently pending claim 80, either expressly or inherently. See id. Specifically, claims 80 and 82 are directed to a method of reducing the size or improving the appearance of a closed wound by administering a non-steroidal anti-inflammatory compound to the closed wound, wherein the non-steroidal anti-inflammatory agent reduces the size or improves the appearance of the closed wound. The '856 patent does not teach any method for reducing the size or improving the appearance of a closed wound using a non-steroidal anti-inflammatory agent. Instead, the '856 patent teaches that sulfasalazine and a carrier, along with an effective amount of an antibody to an integrin, can be used for treating a skin fibrosis. The '856 patent teaches that the antibody to the integrin is the ingredient which is effective for treating a skin fibrosis (col. 3, II. 65-67; col. 4, II. 1-62; col. 14, II. 1-3, 17-20). According to the '856 patent, sulfasalazine is included in the composition only as an anti-inflammatory agent (col. 14, Il. 12). The '856 patent does not teach that sulfasalazine is effective for reducing the size or improving the appearance of a closed wound. Additionally, every example and claim of the '856 patent requires the use of an antibody or antibody fragment to an integrin. Hence, the '856 patent neither teaches nor enables one of skill in the art to use a non-steroidal antiinflammatory agent for reducing the size or improving the appearance of a closed wound. Applicants have overcome this ground of rejection and respectfully request that it be withdrawn.

U.S. 6,521,271

Claims 80-88, 93, and 94 stand rejected under 35 U.S.C. § 102(e) as anticipated by U.S. 6,521,271 ('271 patent). Applicants respectfully disagree that the '271 patent anticipates the present invention. First, claims 81, 83-86, 88, and 94 are cancelled herein. Therefore, this ground of rejection is overcome for these claims and Applicants respectfully request that it be withdrawn.

Second, the invention of currently pending claims 80, 82, 87, and 93 is directed to a method for reducing the size or improving the appearance of a closed wound comprising administering to the closed wound a therapeutically effective amount of a

composition comprising a suitable pharmaceutical carrier and at least one non-steroidal anti-inflammatory agent, wherein the non-steroidal anti-inflammatory agent reduces the size or improves the appearance of the closed wound. As stated above, "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). MPEP § 2131.01. The '271 patent does not disclose, either expressly or inherently, that a non-steroidal anti-inflammatory agent is effective for reducing the size or improving the appearance of a closed wound. Rather, the '271 patent teaches that salicylic acid is effective as a penetration enhancer or as an exfoliant. (col. 6, Il.22-26). Specifically, at col. 4, Il. 33-50, the '271 patent teaches that the effectiveness of turmeric components can be increased by administering turmeric components in combination with various alpha and beta-hydroxy acids, because the acids act as penetration enhancers:

[I]t is believed that, when the turmeric component(s) are combined with alpha hydroxyl acids, the effective concentration of the turmerin and curcumin provides a more active composition for treatment of scars, pigmentation and aging skin. It is believed that, when combined with alpha hydroxyl acid, the component(s) of turmeric (in particular curcumin and turmerin) are able to penetrate the skin and have a pronounced effect on the skin being treated that would not be achieved in the absence of the alpha hydroxyl acid.

(col. 4, II. 37-45). Significantly, the '271 patent particularly teaches that salicylic acid is a primary example of a hydroxy acid that functions as a penetration enhancer when used with a turmeric component (col. 4, II. 48-49).

Third, at col. 9, II. 4-9, the '271 patent teaches that salicylic acid "has been shown to aid in dead skin removal . . . and to have a keratinolytic effect that is useful for skin treatment." None of these characteristics of salicylic acid teach either expressly or inherently that salicylic acid is useful for reducing the size of or improving the appearance of a closed wound. Thus, Applicants have overcome this ground of rejection and respectfully request that it be withdrawn.

35 U.S.C. § 103

The Office action further alleges that, in various combinations, the cited references render the claimed invention obvious under 35 U.S.C. § 103. Applicants respectfully disagree. To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Third, the prior art reference (or references when combined) must teach all the claim limitations. MPEP § 2142.

Applicants respectfully disagree that the claimed invention is obvious in light of the references cited by the Examiner. In particular, although there is no suggestion or motivation for combining the cited references, even when combined, the cited references do not teach either a reasonable expectation of success or all of the claim limitations. Therefore, this ground of rejection is improper and should be withdrawn.

DE 27 07 537

Claims 91, 95-97, 99, and 101-108 stand rejected under 35 U.S.C. § 103 based on the disclosure of the '537 reference. Applicants respectfully disagree that the '537 reference renders the presently claimed invention obvious under 35 U.S.C. § 103. First, claims 91, 95-97, 99, and 104-106 are cancelled herein. Therefore, this ground of rejection is overcome for these claims and Applicants respectfully request that it be withdrawn.

Second, there is no motivation or suggestion to apply the teachings of the '537 reference outside of *acne* scarring. As amended herein, claims 101-103, and 107-108 are not directed to reducing the size or improving the appearance of acne infection or scarring. Rather, these claims are directed to treating scarring resulting from a wound caused by laceration; a wound caused by avulsion; a wound caused by burn; a wound caused by radiation; a wound caused by chemical facial peel; and a wound caused by accident. In scars of this type, there is no need to improve the drainage of skin glands and hair follicles, critical functions of the composition taught in the '537 reference, as explained above at pages 9-10.

Third, as Applicants demonstrated above at pages 9-10, the '537 reference does not teach all the limitations of claims 101-103, and 107-108. In particular, the '537 reference does not disclose any non-steroidal anti-inflammatory agent that *reduces* the size or that *improves* the appearance of a *closed* wound. Therefore, for at least these reasons, the teachings of the '537 reference do not render the invention of claims 101-103, and 107-108 obvious. Applicants respectfully submit that this ground of rejection is overcome and request that it be withdrawn.

JP 08-259,465

Claims 91, and 93-108 stand rejected under 35 U.S.C. § 103 as obvious in view of the teachings of JP '465. Applicants respectfully disagree that JP '465 renders the present invention obvious. In particular, claims 91, 94-100, and 106 are cancelled herein. Therefore, this ground of rejection is overcome for these claims and Applicants respectfully request it be withdrawn.

Moreover, JP '465 teaches away from the invention of claims 101-103 and 107-08. A prima facie case of obviousness may be rebutted by showing that the art teaches away from the claimed invention. In re Geisler, 116 F.3d 1465, 1471 (Fed. Cir. 1997); MPEP 2144.05. Applicants claimed invention is a method or kit which utilizes a non-steroidal anti-inflammatory agent to reduce the size or improve the appearance of a closed wound. JP '465 teaches that a non-steroidal anti-inflammatory agent, by itself, is not effective for treating a skin disease, such as a keloid. (para. [0041]). Specifically, as discussed above, at pages 11-12, JP '465 discloses an external preparation "containing a nonsteroidal (sic) anti-inflammatory agent and sodium cromoglycate" as active ingredients in a composition useful for treating skin diseases. (page 1, PURPOSE). JP '465 further describes various experiments which teach that a non-steroidal antiinflammatory agent by itself is not effective for treating a skin disease, whereas the combination of a non-steroidal anti-inflammatory agent and sodium cromoglycate is effective for treating a skin condition. Further, JP '465 does not teach, either expressly or inherently, that a non-steroidal anti-inflammatory agent is effective, by itself, for treating a closed wound such as a keloid. Thus, JP '465 teaches away from the

invention of claims 101-103 and 107-08 and does not teach all limitations of the claimed invention. Therefore, JP '465 cannot render the invention of claims 101-103 and 107-108 obvious under 35 U.S.C. § 103. Applicants have overcome this ground of rejection and respectfully request that it be withdrawn.

Any of *DE 27 07 537* or *JP 08-268,886* or *JP 08-259,465* or *U.S. Patent No. 6,652,856* or *U.S. Patent No. 6,521,271* in combination with *U.S. Patent No. 5,552,162*

Claims 87-108 stand rejected as obvious under 35 U.S.C. § 103 based on various combinations of any of (a) DE 27 07 537, JP 08-268,886, JP 08-259,465, U.S. Patent No. 6,652,856, U.S. Patent No. 6,521,271 with (b) U.S. Patent No. 5,552,162. Applicants respectfully disagree that the combinations of these references render the claimed invention obvious. First, claims 88, 90-91, 94-100, and 104-106 are cancelled herein. Thus, this ground of rejection is overcome for these claims and Applicants request it be withdrawn.

Second, claims 87, 89, 92-93, 101-103, and 107-108 are directed to kits or methods that can be used to reduce the size and improve the appearance of a closed wound. The claimed kits and methods involve the use of a composition comprising at least one non-steroidal anti-inflammatory agent selected from the group consisting of: salicylic acid; aryl, substituted or unsubstituted aralkyl, allyl, and substituted or unsubstituted, linear, branched, or cyclic alkyl esters of salicylic acid; sulindac sulfide; sulindac sulfone; sulfasalazine; or pharmaceutically acceptable salts or combinations thereof; acetylsalicylic acid; aryl, substituted or unsubstituted aralkyl, allyl, and substituted or unsubstituted, linear, branched, or cyclic alkyl esters of acetylsalicylic acid; sodium salicylate; ibuprofen; celecoxib; rofecoxib; flufenamic acid; indomethacin; nabumetone; naproxen; or pharmaceutically acceptable salts or combinations thereof, wherein the at least one non-steroidal anti-inflammatory agent is effective for reducing the size or improving the appearance of a closed wound. As explained above at pages 9-14, none of the references cited by the Examiner (the '537 reference, JP '886, JP '465, the '856 patent, the '271 patent) teach that a non-steroidal anti-inflammatory agent of claims 87,

89, 92-93, 101-103, and 107-108 is effective for reducing the size or improving the appearance of a closed wound. Additionally, Applicants respectfully note that the Office action acknowledges that the '162 patent does not teach that a non-steroidal anti-inflammatory agent can be used to reduce the size or improve the appearance of a closed wound. Therefore, no combination of the references cited by the Examiner (the '537 reference, JP '886, JP '465, the '856 patent, the '271 patent, and the '162 patent) teaches all of the claim limitations. Hence, claims 87, 89, 92-93, 101-103, and 107-108 are not obvious under 35 U.S.C. § 103. This ground of rejection is improper and should be withdrawn.

CONCLUSION

Applicants believe that currently pending Claims 80, 87, 89, 92-93, 101-103, and 107-110 are patentable. The Examiner is invited to contact the undersigned attorney for Applicants via telephone if such communication would expedite allowance of this application.

Respectfully submitted,

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